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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/875,521	06/06/2001	James W. O'Toole JR.	CIS00-3139	6938

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EXAMINER	
TANG, KENNETH	

ART UNIT	PAPER NUMBER
2127	

DATE MAILED: 11/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/875,521	O'TOOLE, JAMES W.	
	Examiner	Art Unit	
	Kenneth Tang	2127	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 September 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 June 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *9/10/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-30 are presented for examination.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-8 and 11-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention:

a. In claim 1, "a plurality of resources based on" (lines 8-9) is indefinite because it is not made explicitly clear in the claim language whether this is linked or referred to "a plurality of resources to process" (line 9) or if a new plurality of resources is being introduced.

b. In claim 1, "generating an estimated response usage" is indefinite because it is not made explicitly clear in the claim language who or what is generating this estimate. In addition, it is unclear what criteria of estimated response usage that determines or selects one resource over the other.

c. Claims 3, 5, 6, and 11-12 are rejected for the same indefinite reasons as stated in the rejection of claim 1.

d. In claim 7, "selecting a resource" is indefinite (line 1) because it is not made explicitly clear in the claim language who makes the selection – whether it is the client or something else that makes the selection.

e. In claim 13, "selecting" (line 1) and "choosing" (line 7) are indefinite because it is not made explicitly clear in the claim language whether the client is performing this function or some other device.

f. Claim 21 and 29-30 are rejected for the same indefinite reasons as stated in the rejection of claim 13.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 3, 5-6, 13, 15, 18-21, 23, and 26-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu et al. (hereinafter Yu) (US 2002/0120565 A1).

1. As to claim 1, Yu teaches a method in a data communications *(data communication of content source, page 1, [0002])* device for processing data, comprising the steps of:

receiving from a client *(page 2, [0020])*;

selecting *(allocation manager 320, Fig. 3, page 2, [0023])* one of a plurality of resources to process from a plurality of resources based on generating an estimated response usage *(estimate handler 310, Fig. 3)* for each resource of the plurality of resources that reflects a potential usage *(expected peak resource usage, page 2, [0021])*; and

forwarding *(allocation manager 320, Fig. 3, page 2, [0023])* the data to the one of the plurality of resources selected in the step of selecting.

Yu fails to explicitly teach making requests to process data or execute. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature of requesting to process before processing because it would be more efficient to process something only if it is asked for (requested).

2. As to claim 3, it is rejected for the same reasons as stated in the rejection of claim 1. In addition, Yu teaches a memory that stores a cost modeler application *(database 340, Fig. 3 and/or program storage 440, Fig. 4)*; an interconnection mechanism *(communication interface 450 and/or network, Fig 4)*; and a processor *(CPU 410, Fig. 4)* coupled to the memory *(program storage 440, Fig. 4)* by the interconnection mechanism, wherein the processor operates in accordance with instructions of the cost modeler application *(monitor/calculator 330, Fig. 3, page 2, [0024])* stored in the memory to direct the request.

3. As to claim 5, it is rejected for the same reasons as stated in the rejection of claim 1.

4. As to claim 6, it is rejected for the same reasons as stated in the rejection of claim 1.

5. As to claim 13, Yu teaches a method for selecting a resource from a plurality of resources to process from a client, comprising the steps of:

generating a usage metric (estimate of expected peak resource usage) for each resource of the plurality of resources *(page 2, [0021])*;

generating an economic metric (estimate of expected peak resource usage) for each resource based on the usage metric for each resource *(page 2, [0021])*; and

choosing (allocation manager 320) one of the plurality of the resources based on a comparison of the economic metric for each resource *(page 2, [0023]-[0024])*.

Yu fails to explicitly teach making requests to process data or execute. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature of requesting to process before processing because it would be more efficient to process something only if it is asked for (requested).

6. As to claim 15, Yu teaches wherein the step of generating the economic metric comprises the steps of:

generating an estimated request usage for each resource that reflects an estimate of the projected usage of each resource over a current time based on the request for data (estimate handler 310) *(page 2, [0021])*; and

generating an estimated available usage for each resource based on the usage metric for each resource and the estimated request usage for each resource (estimate handler 310) *(page 2, [0021])*.

7. As to claim 18, Yu teaches wherein the step of generating the economic metric comprises generating a bandwidth metric that represents the bandwidth requirements for each resource

(page 2, [0018] and [0021]). Yu fails to explicitly teach that the network address of the client is provided because it would have been obvious to one of ordinary skill in the art at the time the invention was made that a network address of the client is provided because without it, data could not be transferred through the network.

8. As to claim 19, Yu teaches wherein the step of generating the economic metric comprises generating the economic metric based on a category that indicates an estimated request usage for each resource *(page 3, [0027)*.

9. As to claim 20, Yu teaches wherein the step of choosing one of the plurality of resources comprises the step of comparing an estimated available usage for each resource generated based on the request and the usage metric for each resource *(page 2, [0024])*.

10. As to claim 21, it is rejected for the same reasons as stated in the rejection of claims 3 and 13.

11. As to claim 23, it is rejected for the same reasons as stated in the rejection of claim 15.

12. As to claim 26, it is rejected for the same reasons as stated in the rejection of claim 18.

13. As to claim 27, it is rejected for the same reasons as stated in the rejection of claim 19.

14. As to claim 28, it is rejected for the same reasons as stated in the rejection of claim 20.

15. As to claim 29, it is rejected for the same reasons as stated in the rejection of claim 13.

16. As to claim 30, it is rejected for the same reasons as stated in the rejection of claim 13.

17. Claims 2, 4, 14, 16-17, 22, 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu et al. (hereinafter Yu) (US 2002/0120565 A1) in view of Tanaka et al. (hereinafter Tanaka) (US 5,684,994).

18. As to claim 2, Yu teaches wherein the step of selecting the one of the plurality of resources comprises:

generating an estimated available usage *(estimate handler 310, Fig. 3)* for each resource based on the request and usage information received from a usage meter for each resource *(expected peak resource usage, page 2, [0021])*; and

selecting *(allocation manager 320, Fig. 3, page 2, [0023])* the one of the plurality of resources.

Yu fails to explicitly teach that the selection is done based on a highest estimated available usage for each resource. However, Tanaka teaches selecting based on a highest estimated available usage for each resource (selecting based on lowest cost of resource) *(col. 20, lines 47-67 through col. 21, lines 1-11, col. 23, lines 55-62)*. It would have been obvious to one

of ordinary skill in the art at the time the invention was made to include the feature of selecting (allocating) a resource that has the highest estimated available usage (or where the cost is less) to the existing allocation manager of Yu because this would improve Yu's efficiency of resource allocation *(col. 7, lines 5-7)*.

19. As to claim 4, it is rejected for the same reasons as stated in the rejection of claim 2.

20. As to claim 14, it is rejected for the same reasons as stated in the rejection of claim 2. In addition, Yu teaches generating a peak usage metric for each resource that represents a measurement of the highest level of usage attained for each resource over a current billing period based on the usage information (resource usage for billing plan within a cycle) *(page 1, [0008])*.

21. As to claim 16, it is rejected for the same reasons as stated in the rejection of claim 2. In addition, Yu teaches generating a peak usage metric for each resource that represents a measurement of the highest level of usage attained for each resource over a current billing period based on the usage information (resource usage for billing plan within a cycle) *(page 1, [0008])*.

22. As to claim 17, Yu teaches wherein the step of generating the estimated available usage comprises the steps of: identifying a subset of the plurality of resources wherein the estimated request usage is higher than a predetermined usage limit defined relative to the peak usage metric for each resource and assigning a predetermined marginal cost to an incremental usage

(increased amount) of each resource in the subset *(col. 20, lines 47-67 through col. 21, lines 1-11, col. 23, lines 55-62)*.

23. As to claim 22, it is rejected for the same reasons as stated in the rejection of claim 14.

24. As to claim 24, it is rejected for the same reasons as stated in the rejection of claim 16.

25. As to claim 25, it is rejected for the same reasons as stated in the rejection of claim 17.

26. Claims 7-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (hereinafter Tanaka) (US 5,684,994) in view of Yu et al. (hereinafter Yu) (US 2002/0120565 A1).

27. As to claim 7, Tanaka teaches a method for selecting a resource from a plurality of resources to process a request (performed by the resource assignment apparatus) *(see Title and Abstract)*, comprising the steps of:

generating a first cost increase (increased amount) for a first resource of the plurality of resources if the first resource responds to the request (from the insertion of transmission instructions) and a second cost increase (increased amount for another resource cost) for a second resource of the plurality of resources if the second resource responds to the request (from the insertion of transmission instructions) *(col. 23, lines 45-48)*;

comparing (element minority assignment unit 12 does comparison) the first cost increase and the second cost increase to determine one of the first and second cost increases that has a lower cost increment *(col. 23, lines 55-62)*; and

selecting (selection of assignable resource and resource element minority assignment unit 12) one of the first resource and the second resource to respond to the request based on the lower cost increment (chooses lowest inference cost) *(col. 20, lines 47-67 through col. 21, lines 1-11, col. 23, lines 55-62)*.

28. Tanaka teaches the request originating from the same computer system but fails to explicitly teach the request can be from a client. However, Yu teaches a data communication means of content source that optimizes allocation of resources over a network *(page 1, [0001]-[0002])*. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature of requests coming from a client over a network to the existing resource assignment apparatus of Tanaka because content could be accessed in a convenient manner *(page 1, [0002])*.

29. As to claim 8, Tanaka teaches wherein the step of comparing the first cost increase and the second cost increase comprises determining that the first cost increase exceeds a preset first cost level and the second cost increase does not exceed a second preset cost level (when there is no resource element for which assigning is possible the assignment is then moved to another resource group) *(see Abstract)*.

30. As to claim 9, it is rejected for the same reasons as stated in the rejection of claim 7. In addition, Tanaka teaches a memory that stores a cost modeler application (Fig. 4, items 42 and 48) and a CPU processor coupled to all units such as memory (like all computers have). However, Tanaka fails to explicitly teach an interconnection mechanism. Yu teaches a memory that stores a cost modeler application *(database 340, Fig. 3 and/or program storage 440, Fig. 4)*; an interconnection mechanism *(communication interface 450 and/or network, Fig 4)*; and a processor *(CPU 410, Fig. 4)* coupled to the memory *(program storage 440, Fig. 4)* by the interconnection mechanism, wherein the processor operates in accordance with instructions of the cost modeler application *(monitor/calculator 330, Fig. 3, page 2, [0024])* stored in the memory to direct the request. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the feature of Yu's interconnection mechanism for resource allocation to Tanaka's resource allocator because the interconnection mechanism would allow access to content in a convenient manner *(page 1, [0002])*.

31. As to claim 10, it is rejected for the same reasons as stated in the rejection of claim 8.

32. As to claim 11, it is rejected for the same reasons as stated in the rejection of claim 7.

33. As to claim 12, it is rejected for the same reasons as stated in the rejection of claim 7.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Tang whose telephone number is (571) 272-3772. The examiner can normally be reached on 8:30AM - 6:00PM, Every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kt
11/9/04

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